

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph 0015 with the following amended paragraph:

0015 Figure 3 illustrates steps of a method for determining processor utilization. Beginning at block 300, the host system 100 is configured. Configuration of the host system 100 includes connecting the current sensor 145 to the ~~target processor 115 and adjusting user settings~~ input 140 of the host 100. One sample configuration collects processor utilization data and generates comparative plots, as shown in Figure 2, whereas other sample configurations may collect and plot processor utilization in real-time. At block 310 the MCU is installed on the target processor 115 for circumstances where a target processor's maximum current consumption is unknown. As discussed earlier, the MCU is a software application adapted to utilize a maximum amount of processor resources on the target processor. Measuring the current consumed by the processor when it is most utilized allows a benchmark to be established so that processor utilization is calculated as a ratio of the target processor's 115 maximum capabilities. Block 320 involves setting up a target software application on the target system 105 wherein the software application's demand on the target processor 115 is unknown. More than one target software application may be installed/configured on the target system 105 to ascertain how utilized the target processor 115 is during the execution of those software applications. The target application is started for a pre-determined amount of time at block 330 and the effects of that application on the target processor 115 are collected by the current sensor 145 and logged at block 340. After the target software application has stopped executing, the MCU is started at block 350 and the effects of the MCU on the target processor 115 are collected by the current sensor 145 and logged at block 360. Upon completion of data collection at block 360, an average maximum processor current value is calculated at block 370. The host system 100 now has enough data at block 380 to calculate the percentage of processor usage caused by executing the target application(s). The percent of processor utilization is obtained by dividing the current consumed by the target processor 115 during execution of the software application(s) by the average maximum processor current consumed when the MCU was executed. The host system 100 plots the percent processor usage versus time at block 390.